

POWERLINES

Heating Degree Days Can Help Measure Costs

One way to compare heating needs from one day to another is to calculate heating degree days. Looking at heating degree days helps to relate each day's temperatures to the demand for heating.

To calculate the heating degree days for a particular day, find the day's average temperature by adding the day's high and low temperatures and dividing by two. If the number is above 65, the number of heating degree days is zero for that day. If the number is less than 65, subtract it from 65 to find the number of heating degree days.

Heating Degree Days example...

Today's high temperature: 60
 Today's low temperature: 40
 Today's average temperature: 50

65 - 50 = 15 heating degree days

January 2003 was unusually cold. There were 188.5 more heating degree days than the same period last year and the average temperature in January 2003 was only 33 degrees.

Cooling Degree Days example...

Today's high temperature: 90
 Today's low temperature: 70
 Today's average temperature: 80

80 - 65 = 15 cooling degree days

Heating and cooling degree days can be used to relate how much more or less you might spend on heating or air conditioning from one month to the next. Records of past heating degree days could be used to determine if the money spent on insulation, a newer furnace, or a more efficient air conditioner is paying off.

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Powerlines is produced by the Volunteer Energy Cooperative's Member Services Department as a service to customers. Comments and suggestions can be e-mailed to vec@vec.org or mailed to VEC Member Services Department, P.O. Box 277, Decatur, TN 37322.

CPR Training for VEC Employees

Roger Martin demonstrates the correct way to perform chest compressions on a victim during a CPR class held recently as part of the regular two-year certification for VEC employees. Other trainers included Todd Bolin in the Jamestown/Crossville area and Eddie Flowers in Cleveland. Automatic External Defibrillator devices (AEDs) have been installed on VEC crew bucket trucks for use in case they are needed due to a work-related injury.



Volunteer Energy Cooperative Ad Valorem Taxes—2002

Ad valorem tax assessments are made by the Tennessee Regulatory Authority (TRA). Local tax rates are applied by the taxing jurisdictions. The table below lists the ad valorem taxes paid for the taxable year 2002.

Counties	Total Paid	Cities	Total Paid
Bledsoe	\$ 12,588.00	Athens	\$ 185.00
Bradley	257,008.58	Benton	4,583.00
Cumberland	262,718.00	Byrdstown	3,144.00
Fentress	133,884.00	Calhoun	850.00
Hamilton	133,794.93	Charleston	803.39
McMinn	94,236.00	Cleveland	14,249.00
Meigs	153,876.00	Crossville	23,767.07
Overton	10,113.38	Decatur	18,790.00
Pickett	50,329.86	Jamestown	3,716.27
Polk	79,659.56	Monterey	8,478.00
Putnam	54,999.00	Spring City	8,431.00
Rhea	86,275.00		
Roane	49,926.00		
Scott	459.31		
White	20,673.00		
		Total City Taxes	\$ 86,996.73
		Grand Total Paid	\$ 1,487,537.35
Total County Taxes	\$ 1,400,540.62		

VEC Passes Another Weather Related Test

By Bill Buchanan,
President



Although most would agree that we live in what can be described as "God's country" here in the Tennessee Valley, from time to time Mother Nature can be brutal. In late January, many areas saw record low temperatures that put unusual demand on electric systems throughout the eastern United States.

On January 24, 2003 single digit temperature lows and daytime highs only in the teens drove power demand to a new all-time record for the Tennessee Valley Authority. The VEC system experienced record peak demands at many locations.

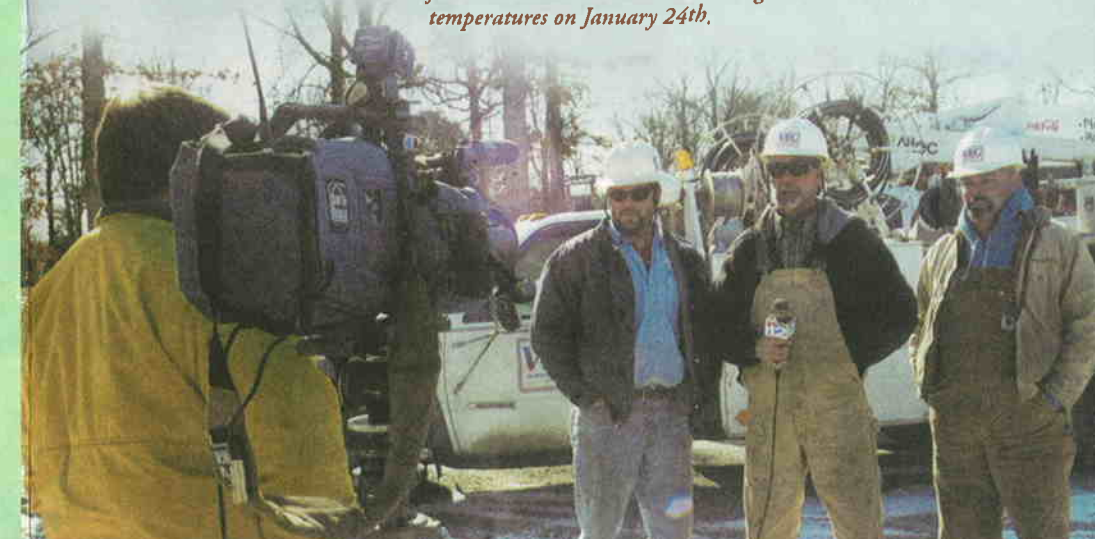
This was the first time that our newly installed Supervisory Control and Data Acquisition (SCADA) system was put to a "real world" test. We were extremely pleased with the results. It allowed us to watch power demands at substations and make adjustments to manage the load. With the extremely heavy load some outages did occur, but without SCADA the impact of the low temperatures would have been much more widespread for VEC customers.

The activity on January 24th at the VEC corporate office was a good example of the power of teamwork. Engineers were constantly monitoring loads at our substations and relaying reports to operations personnel. They were able to allocate manpower to areas affected by outages.

In the field, VEC crews began work in the early morning hours and continued their labor far into the day. I am so proud of these line crews who braved biting cold, and sometimes dangerous conditions to restore power to customers as quickly as possible.

Once again, VEC employees and equipment passed the test that Mother Nature provided. No doubt there will be other challenges for our employees, especially as we move into thunderstorm season. But there is no question that you have the finest individuals working for you at your cooperative!

Despite being on the job since the wee morning hours, Brian Ballard, Mark Pirkle, and Eddie Geren take time to provide an interview for Channel 12 News in Chattanooga about the record cold temperatures on January 24th.



Equal Monthly Payment Plan Helps Avoid Bill Spikes



With the unusually cold temperatures in the Tennessee Valley this winter, many customers are seeing higher than average electric bills. When the temperature outside dips into the teens and single digits, more energy is needed to maintain the temperature indoors.

But some VEC customers saw NO difference in their bills during the cold weather.

How? These customers have chosen the Equal Monthly Payment Plan offered by Volunteer Energy Cooperative. This option is available to VEC customers who have had service with the cooperative for more than one year. Energy usage over the previous year is calculated and averaged. Customers pay the same rate all year long, smoothing out the spikes they would otherwise see in the winter for heating and in the summer for cooling.

Customers who are eligible for the **Equal Monthly Payment Option** will receive notices in their VEC bills in May or early June. These notices will include the equal amount calculated from usage from June of the previous year. To sign up for the plan, you only need to sign and return the form and your equal payment will begin in July.

VECcustomers Share

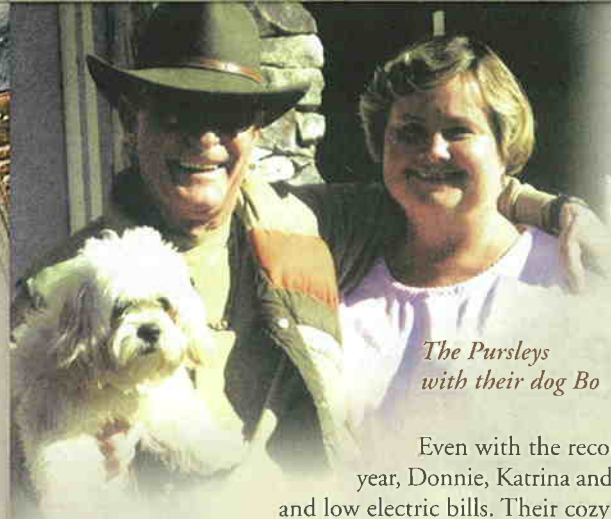
Grants Awarded in January

Grants totaling \$32,229.25 were awarded by the VECcustomers Share board of directors in January 2003. VECcustomers Share is a nonprofit, tax exempt charitable organization covering a 17 county area. The foundation's funds are derived from Volunteer Energy Cooperative members who allow their electric bills to be rounded up to the nearest \$1. The additional amount goes into the VECcustomers Share fund, which is administered by the foundation's board of directors whose 12 members serve as volunteers.

VECcustomers Share contributions average 50 cents each month or \$6 per year for each participating residential customer. More than 80 percent of VEC's customers are donating to the program. The deadline for grant applications is the last day of each month. For additional information, contact Patty Hurley, manager of member services, at 423-334-7050.

Mayland Senior Citizens, Inc., Crossville	\$ 900.00
Junior High Boys Basketball Boosters, Byrdstown	\$ 2,000.00
Meigs Middle School Cheerleading Booster Club, Decatur	\$ 900.00
Chilhowee Middle School PTO, Benton	\$ 2,000.00
Cleveland High School Girls Basketball Booster Club, Cleveland	\$ 900.00
Sammy Sedman Chess Club, Harrison	\$ 839.25
Athens Area Council for the Arts, Athens	\$ 900.00
Ocoee Middle School PTO, Cleveland	\$ 2,000.00
Cumberland County Rescue Squad, Crossville	\$ 2,000.00
McMinn County Living Heritage Museum, Athens	\$ 460.00
Armathwaite Fire Department, Allardt	\$ 900.00
Allardt Fire Department, Allardt	\$ 900.00
Rhea County Rescue Squad, Spring City	\$ 2,000.00
Helping Hands Ministry, Ooltewah	\$ 2,000.00
McMinn County SkillsUSA -VICA Alumni and Friends Chapter, Athens	\$ 900.00
Meigs County Historical Society, Decatur	\$ 2,000.00
Calhoun Charleston Food Bank, Calhoun	\$ 900.00
Riceville Fire Department, Riceville	\$ 2,000.00
Clarkrange High School Chess Team, Clarkrange	\$ 2,000.00
Monterey Senior Citizens, Monterey	\$ 900.00
Monterey Food Bank, Monterey	\$ 2,000.00
CCHS Advanced Choir Booster Club, Crossville	\$ 2,000.00
SETHRA - (carried over from December), Decatur	\$ 900.00

VECcustomers Share Board Members Randy Schmittendorf presents a grant to Ann Smith of Tri-State Resource and Advocacy Corporation, Inc.



The Pursleys with their dog Bo

Energy Saving Design Helps Keep Heating Bills **LOW**

Even with the record-breaking winter temperatures this year, Donnie, Katrina and Donna Pursley enjoy their warm home and low electric bills. Their cozy 6900+ square foot home, located in the Sanford community of McMinn county, benefits from energy-saving features that were instituted when it was built about 11 years ago.

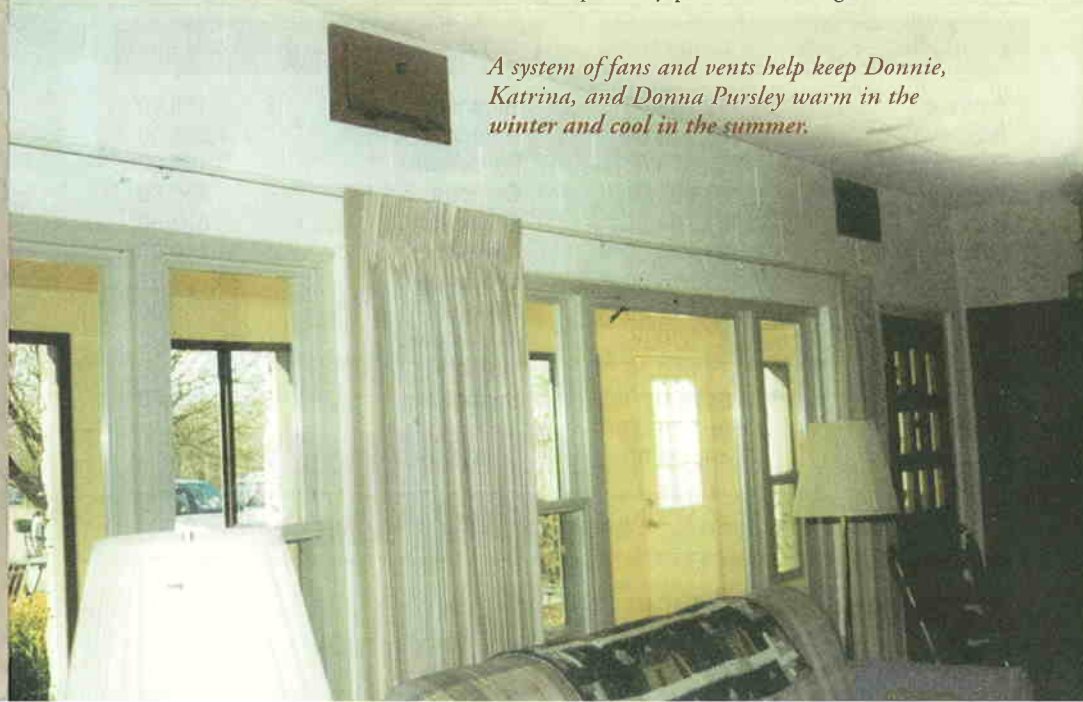
From the front, the Pursley home looks much like other houses in the Tennessee Valley. The most visible sign of energy efficiency is an attractive Crab Orchard stone covered 80' x 8' solarium that runs the length of the living quarters in the front. This solarium allows air to be warmed in the winter and circulated throughout the house. Hot air in the summer is vented from the house through the solarium to the outdoors. A system of vents and fans accomplishes this feat. It is very important, Donnie says, to remember to maintain a two-way flow of air, both in summer and winter. His system utilizes both intake and exhaust fans and vents. The large rooms are warm and inviting and plenty of light makes the floor plan welcoming. Donnie drew the plans himself, incorporating energy efficient features whenever possible. No carpet is used so that the sun's energy is fully utilized and not absorbed into carpet fibers.

"My goal," Donnie says, "is that no outside air touches the inside." His research revealed that such an airtight house, when constructed correctly, is not unhealthy, as was once believed. Moisture, a fear of many home builders, is no problem with the efficient circulation system. Heat registers are located in the floor and air conditioning ducts are in the ceiling. "This makes perfect sense," he says, "since hot air rises and cold air falls."

Donnie's knowledge of energy-efficient home design is a result of 10-15 years of research. "When I started this process," he said, "I wanted to build something worthwhile. The home is a 12" block masonry structure covered on the outside with 1" of industrial foam. A plastic barrier and Bowater felt combine to protect the structure from the infiltration of moisture.

The house, partially buried 9' - 10' into the ground on the rear and East end, is situated on the lot to make the best use of winter sun, precisely positioned 5 degrees off South

A system of fans and vents help keep Donnie, Katrina, and Donna Pursley warm in the winter and cool in the summer.



A front view of the Pursley home shows the attractive solarium that helps reduce energy bills.

to the East. This provides plenty of sunshine to warm the home in winter and minimizes the infiltration of hot summer rays.

The energy efficiency of the home is boosted by 2 rolls of R13 insulation in the ceiling, which is sloped toward the front, and conditioning dead air space. It is so well insulated that the family often cannot hear thunder during storms from the inside. It sits on a concrete slab, into which heating vents are placed.

The Pursley home is served by one 4 ton and one 3 ton heat pump. The first and second floors are designed so that each can be used as separate living quarters. The Pursleys are deservedly proud of their energy efficient home. Their efforts prove that beauty, comfort, and energy efficiency can combine to provide not just a house, but a lovely home.

From our Customers...

VEC employees draw great pleasure from a job well done. And we appreciate your letters! Here are two that we recently received.



Dear Mr. Buchanan:

I am writing to express my appreciation for the handling of a recent electrical problem that occurred at my lake home. On February 10th I visited that property and found my power off. Everything in the refrigerator was spoiled and there was no power for heat. After investigating and finding a wire disconnected from the main line, I called VEC. I was immediately put in touch with your service department. A gentleman there said a truck would be out within 30 minutes. In less than 30 minutes a truck arrived and accessed the problem. Mr. Hixon and Mr. Price were very professional in their service and instead of just patching up the line, determined I would need a new service line to insure against future problems. Working together they accomplished this in over an hour, even cutting some tree limbs out of the way. In my 20 years receiving your service I have always been impressed by your company and the professionalism of your employees. Please again thank all those involved in getting me back on line and continue the good work you are doing in the community.

—James Winston, Knoxville

In the early morning hours when our heat went off we discovered that people were working in 2.7 degree weather to get it working again. We thank all of you for the work you do and give a special thanks to the ones working on that very cold morning to restore the electricity to our community.

—Ross and Nan Walker, Decatur